

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

93. (Previously presented) A system for monitoring a space external to the system, the system comprising:

a microprocessor;

a memory coupled to the microprocessor, the memory including instructions for processing a sensor signal derived from at least one environmental parameter of the space external to the system and the memory including a web server application;

a sensor configured to detect the at least one environmental parameter of the space external to the system and configured to generate the sensor signal derived from the at least one detected environmental parameter of the space, the sensor selected from a group consisting of a temperature sensor, a relative humidity sensor, and an air flow sensor; and

at least one port for communicating with a network, the at least one port responsive to the microprocessor, the web server application configured to provide a webpage associated with the sensor signal via the at least one port.

94. (Previously presented) The system Claim 93, wherein the network comprises a global computer network.

95. (Previously presented) The system of Claim 93, wherein the network comprises an intranet.

96. (Previously presented) The system of Claim 93, wherein the network comprises a wireless network.

97. (Previously presented) The system of Claim 93, further comprising one or more connectors to interface with external devices.
98. (Previously presented) The system of Claim 93, the system further comprising a power source.
99. (Previously presented) The system of Claim 98, wherein the power source is the excess voltage provided by an Ethernet cable coupled to an Ethernet connector.
100. (Previously presented) The system of Claim 93, wherein the network is accessed via a telephone line.
101. (Previously presented) The system of Claim 93, wherein the network is accessed via an Ethernet interface, and wherein the Ethernet interface has compliant TCP/IP stacks.
102. (Previously presented) The system of Claim 93, further comprising a radio frequency interface operable to communicate wirelessly within the network.
103. (Previously presented) The system of Claim 93, further comprising a radio frequency interface operable to communicate with a device external to the network.
104. (Previously presented) The system of Claim 93, wherein the microprocessor is an embedded Java microprocessor.
105. (Previously presented) The system of Claim 93, wherein the microprocessor is a tiny internet interface microprocessor.
106. (Previously presented) The system of Claim 93, wherein the microprocessor operates with an embedded Java software platform.

107. (Previously presented) The system of Claim 93, wherein the sensor comprises an air flow sensor comprising a hot-wire anemometer circuit.
108. (Previously presented) The system of Claim 107, wherein air flow is calculated.
109. (Previously presented) The system of Claim 93, further comprising a microphone.
110. (Previously presented) The system of Claim 109, wherein the system generates a signal upon detecting an audible alarm.
111. (Previously presented) The system of Claim 93, wherein the instructions for processing can be updated via the web server application.
112. (Previously presented) The system of Claim 93, wherein programming instructions are provided to the web server application via HTTP.
113. (Previously presented) The system of Claim 112, wherein the programming instructions comprise parameter threshold values.
114. (Previously presented) The system of Claim 93, wherein the instructions for processing operably generate an alarm signal in the event that the sensor signal exceeds a parameter threshold value.
115. (Previously presented) The system of Claim 93, further comprising instructions for generating and forwarding an email status report to at least one user.
116. (Previously presented) The system of Claim 115, wherein the status report indicates that the at least one environmental parameter has exceeded a corresponding threshold value.

117. (Previously presented) The system of Claim 93, further comprising instructions for generating and forwarding an email alarm report to one or more users when the at least one environmental parameter exceeds a corresponding threshold value.

118. (Previously presented) The system of Claim 93, further comprising instructions for generating and forwarding a status report via electronic paging.

119. (Previously presented) The system of Claim 93, further comprising instructions for dialing via a telephone connection to inform a system administrator of a loss of power or loss of internet protocol connection.

120. (Previously presented) The system of Claim 93, wherein the web server application provides an HTML interface.

121. (Previously presented) The system of Claim 120, wherein the HTML interface comprises an image display area, a monitored parameter display area, an alarm threshold display area, and a system user information display area.

122. (Previously presented) The system of Claim 121, wherein the system user information display area can be configured by a user to display customized information.

123. (Previously presented) The system of Claim 93, further comprising:
a power source; and a rechargeable backup power source to provide power upon loss of the power source.

124. (Previously presented) The system of Claim 123, further comprising a sensor configured to detect the failure of a power supply and notify the microprocessor of the power failure.

125. (Previously presented) The system of Claim 93, further comprising a video imager to provide a digital image of the space.

126. (Previously presented) The system of Claim 125, wherein the video imager is a CMOS imager.
127. (Previously presented) The system of Claim 126, further comprising a binary input to activate the video imager to capture an image of the space.
128. (Previously presented) The system of Claim 127, further comprising an external sensor, wherein the external sensor provides the binary input upon the occurrence of a preset condition.
129. (Previously presented) The system of Claim 128, wherein the external sensor is a magnetic switch for sensing the opening of a door to the space, and wherein the preset condition is the opening of the door.
130. (Previously presented) The system of Claim 129, further comprising a record data file to track personnel access into a room.
131. (Previously presented) The system of Claim 93, further comprising instructions for software agents operable to investigate an internal condition of a network component, the network component accessible via the at least one port.
132. (Previously presented) The system of Claim 131, wherein the software agents investigate the internal condition of compatible network components through communication in accordance with an interface, the interface being an SNMP, DMI, or SMBIOS interface.
133. (Previously presented) The system of Claim 93, further comprising one or more binary outputs connected to one or more relays to control one or more external loads, and instructions for controlling the one or more binary outputs.

134. (Previously presented) The system of Claim 133, wherein the external load is an air conditioning unit.

135. (Previously presented) The system of Claim 93, wherein the space external to the system is located within a server room.

136. (Previously presented) The system of Claim 93, wherein the system is mountable on a wall in a position to monitor the contents of a server room.

137. (Previously presented) The system of Claim 93, wherein the system is configured to be mounted in an equipment rack.

138. (Previously presented) The system of Claim 93, further comprising a unique universal resource locator and static internet protocol address.

139. (Previously presented) The system of Claim 93, further comprising an internet site.

140. (Previously presented) The system of Claim 93, further comprising an email list of personnel to notify.

141. (Previously presented) The system of Claim 93, wherein a third-party may access the webpage to monitor equipment in a leased space.

142. (Currently amended) The system of Claim 93, wherein the relative humidity sensor comprises a ceramic plate that shrinks or expands with changes in relative humidity ~~humidity~~.

143. (Previously presented) The system of Claim 93, wherein the webpage is accessible by clicking on a link at an online auction site.

144. (Previously presented) The system of Claim 93, wherein the system is self-contained and is remote from an end user computer.

145. (Previously presented) The system of Claim 93, further comprising an event log.

146. (Previously presented) The system of Claim 93, further comprising a list of user-specified thresholds for each monitored environmental parameter.

147. (Previously presented) An apparatus comprising:

a sensor configured to measure ambient conditions with respect to monitored equipment, the sensor physically uncoupled and spaced apart from the monitored equipment and the sensor configured to measure the ambient conditions without use of a bidirectional communication link between the sensor and the monitored equipment, the sensor configured to generate a sensor signal associated with the measured ambient conditions, the sensor selected from a group consisting of a temperature sensor, a relative humidity sensor, and an air flow sensor;

at least one microprocessor responsive to the sensor signal;

video camera circuitry coupled to the at least one microprocessor, the video camera circuitry configured to acquire an image of the monitored equipment;

memory coupled to the at least one microprocessor, the memory including instructions for processing the sensor signal, instructions for processing the image of the monitored equipment, and a web server application; and

at least one network port responsive to the at least one microprocessor and configured for communicating the image of the monitored equipment and the measured ambient conditions in a web page provided by the web server application over a distributed computer network to a remote location for display.

148. (Previously presented) The apparatus Claim 147, wherein the distributed computer network comprises a global computer network.

149. (Previously presented) The apparatus of Claim 147, wherein the distributed computer network comprises an intranet.

150. (Previously presented) The apparatus of Claim 147, wherein the distributed computer network comprises a wireless network.

151. (Previously presented) The apparatus of Claim 147, further comprising one or more connectors to interface with external devices.

152. (Previously presented) The apparatus of Claim 147, wherein the distributed computer network is accessed via an Ethernet interface, and wherein the Ethernet interface has compliant TCP/IP stacks.

153. (Previously presented) The apparatus of Claim 147, further comprising a radio frequency interface operable to communicate wirelessly within the distributed computer network.

154. (Previously presented) The apparatus of Claim 147, further comprising a radio frequency interface operable to communicate with a device external to the distributed computer network.

155. (Previously presented) The apparatus of Claim 147, wherein the sensor comprises an air flow sensor comprising a hot-wire anemometer circuit.

156. (Previously presented) The apparatus of Claim 147, further comprising a microphone.

157. (Previously presented) The apparatus of Claim 156, further comprising an audible alarm detector that generates a signal upon detecting an audible alarm.

158. (Previously presented) The apparatus of Claim 147, wherein the instructions for processing can be updated via the web server application.

159. (Previously presented) The apparatus of Claim 158, wherein the instructions for processing comprise parameter threshold values.

160. (Previously presented) The apparatus of Claim 147, wherein the instructions for processing operably generate an alarm signal in the event that the sensor signal exceeds a parameter threshold value.

161. (Previously presented) The apparatus of Claim 147, further comprising instructions for generating and forwarding an email status report to at least one user at the remote location.

162. (Previously presented) The apparatus of Claim 161, wherein the status report indicates that the sensor signal has exceeded a corresponding threshold value.

163. (Previously presented) The apparatus of Claim 147, further comprising instructions for generating and forwarding an email alarm report to one or more users when the sensor signal exceeds a corresponding threshold value.

164. (Previously presented) The apparatus of Claim 147, further comprising instructions for generating and forwarding a status report via electronic paging.

165. (Previously presented) The apparatus of Claim 164, wherein the webpage comprises an image display area, a monitored parameter display area, an alarm threshold display area, and a apparatus user information display area.

166. (Previously presented) The apparatus of Claim 165, wherein the apparatus user information display area can be configured by a user to display customized information.

167. (Previously presented) The apparatus of Claim 147, further comprising:
a power source; and a rechargeable backup battery to provide power upon loss of the power source.

168. (Previously presented) The apparatus of Claim 167, further comprising a binary input to activate the video camera circuitry to capture an image of the space.

169. (Previously presented) The apparatus of Claim 168, further comprising an external sensor, wherein the external sensor provides the binary input upon the occurrence of a preset condition.

170. (Previously presented) The apparatus of Claim 169, wherein the external sensor is a magnetic switch for sensing the opening of a door to the space, and wherein the preset condition is the opening of the door.

171. (Previously presented) The apparatus of Claim 147, further comprising instructions for software agents operable to investigate an internal condition of a network component, the network component accessible via the at least one port.

172. (Previously presented) The apparatus of Claim 171, wherein the software agents investigate the internal condition of compatible network components through communication in accordance with an interface, the interface being an SNMP, DMI, or SMBIOS interface.

173. (Previously presented) The apparatus of Claim 147, further comprising one or more binary outputs connected to one or more relays to control one or more external loads, and instructions for controlling the one or more binary outputs.

174. (Previously presented) The apparatus of Claim 173, wherein the external load is an air conditioning unit.

175. (Previously presented) An apparatus comprising:
a temperature sensor;
a humidity sensor;
an acoustic sensor;

an airflow sensor;

at least one external sensor interface configured to connect to an external sensor, the external sensor configured to monitor environmental conditions ambient to monitored computer equipment;

a web server configured to provide a web page having information derived from at least one of the temperature sensor, the humidity sensor, the acoustic sensor, the air flow sensor, and the external sensor;

a simple network management protocol module configured to communicate using a simple network management protocol;

at least one network interface responsive to the simple network management protocol module and configured to access a distributed computer network; and

an alarm module responsive to at least one of the temperature sensor, the humidity sensor, the acoustic sensor, the air flow sensor, and the external sensor and configured to send an alarm notification via the web server.

176. (Previously presented) The apparatus of claim 175, further comprising an interface configured to access an external camera.

177. (Previously presented) The apparatus of claim 176, wherein the alarm notification includes an image from the external camera.

178. (Previously presented) The apparatus of claim 175, further comprising an email module configured to send email.